

## ABSTRACT OF THE DISCLOSURE

The invention relates to a method for thermogravimetrically testing the behavior of a solid material in the presence of a controlled gaseous atmosphere, characterized in that a plurality of samples (10) are placed in the presence of said gaseous atmosphere inside the same controlled atmosphere furnace (4); each sample is associated with a scale (38) proper thereto; the samples (10) undergo predetermined successive thermal cycles each including a heating step during which the samples are directly heated (by radiation or induction) and a cooling step during which the weight of each sample is independently measured and recorded in a continuous manner during at least one predetermined period such as a high temperature level during the heating step of each thermal cycle. The invention also relates to a device for carrying out said method.